

IN THE CLAIMS

Please amend the claims as follows:

Claim 1. (Currently Amended) A temperature measuring apparatus of a thermocouple type comprising:

a member formed of a high melting point metal carbide;

a member formed of carbon system material, wherein said member formed of a high melting point metal carbide and said member formed of carbon system material are threadedly connected at a connected portion, and the connected portion serves as a temperature measuring portion; and

an electrically insulating spacer fixed to said member formed of carbon system material but not fixed to said member formed of a high melting point metal carbide, wherein said spacer is positioned to maintain a spacing between said member formed of a high melting point metal carbide and said member formed of carbon system material,

wherein an end of said member formed of a high melting point metal carbide and an end of said member formed of carbon system material are connected at said connected portion using a connecting member formed of either material of said member formed of a high melting point metal carbide or said member formed of carbon system material to serve as a temperature measuring portion.

Claim 2. (Currently Amended) The temperature measuring apparatus of a thermocouple type according to claim 1, wherein both said member formed of a high melting point metal carbide and said member formed of carbon system material have a rod shaped portion, ~~and an end of said member formed of a high melting point metal carbide and an end of said member formed of carbon system material are connected at said connected portion using a connecting member formed of either material of said member formed of a high~~

~~melting point metal carbide or said member formed of carbon system material to serve as a temperature measuring portion.~~

Claim 3. (Currently Amended) The temperature measuring apparatus of a thermocouple type according to claim [[2]] 1, wherein the end of said member formed of a high melting point metal carbide is formed with an external thread, and said connecting member is formed with an internal thread to provide a thread connection therebetween.

Claim 4. (Withdrawn) The temperature measuring apparatus of a thermocouple type according to claim 1, wherein said member formed of a high melting point metal carbide is rod-like, said member formed of carbon system material is pipe-like with a bottom, and said member formed of a high melting point metal carbide is inserted into said member formed of carbon system material and connected at the bottom to serve as a temperature measuring portion.

Claim 5. (Withdrawn) The temperature measuring apparatus of a thermocouple type according to claim 4, wherein the end of said member formed of a high melting point metal carbide is formed with an external thread, and the bottom of said member formed of carbon system material is formed with an internal thread to provide a thread connection therebetween.

Claim 6. (Original) The temperature measuring apparatus of a thermocouple type according to claim 1, wherein said high melting point metal carbide is carbide of either one kind of tungsten, tantalum, titanium, hafnium, niobium, or zirconium.

Claim 7. (Original) The temperature measuring apparatus of a thermocouple type according to claim 6, wherein said high melting point metal carbide is WC.

Claim 8. (Original) The temperature measuring apparatus of a thermocouple type according to claim 6, wherein said high melting point metal carbide is TaC.

Claim 9. (Original) The temperature measuring apparatus of a thermocouple type according to claim 6, wherein said high melting point metal carbide is TiC.

Claim 10. (Original) The temperature measuring apparatus of a thermocouple type according to claim 6, wherein said high melting point metal carbide is HfC.

Claim 11. (Original) The temperature measuring apparatus of a thermocouple type according to claim 6, wherein said high melting point metal carbide is NbC.

Claim 12. (Original) The temperature measuring apparatus of a thermocouple type according to claim 6, wherein said high melting point metal carbide is ZrC.

Claim 13. (Original) The temperature measuring apparatus of a thermocouple type according to claim 1, wherein said carbon system material is graphite.

Claim 14. (Original) The temperature measuring apparatus of a thermocouple type according to claim 1, wherein said member formed of high melting point metal carbide is produced by covering a high melting point metal rod material with carbon powder, and the entirety is compressed in a high temperature condition to carbonize it.

Claim 15. (Currently Amended) The temperature measuring apparatus of a thermocouple type according to claim 1, wherein an outer circumferential portion of said member formed of high melting point metal carbide is ground, and an end thereof is formed with an external thread by supersonic process or discharge process.

Claim 16. (Previously Presented) A method for producing the temperature measuring apparatus of a thermocouple type of claim 1, comprising the steps of:

covering a high melting point metal rod material with carbon powder;
compressing the entirety of said high melting point metal rod material in a high temperature condition to carbonize the high melting point metal rod material to thereby produce the member formed of a high melting point metal carbide;
forming a member made of a carbon system material; and
threadedly connecting said member formed of a high melting point metal carbide and said member made of a carbon system material at a connected portion.

Claim 17. (Withdrawn) A method for producing the temperature measuring apparatus of a thermocouple type of claim 4, wherein the outer circumferential portion of the member formed of high melting point metal carbide is ground, the end is formed with an external thread by the supersonic process or discharge process, an internal thread is formed on a bottom of the member formed of carbon system material, and the apparatus is formed into a thermocouple type by connecting the external thread and the internal thread.